

REMARKS

The Examiner, Mr. Nguyen, is thanked for the courtesy extended applicants attorney during the interview of July 1, 2004 at which time differences between the claimed invention and the cited art were discussed. As noted in the Interview Summary, by inserting the term "all" to the limitation "other divided regions" and adding the limitation "delaying video data" together with the limitation "liquid crystal" would overcome the prior art. By the present amendment, the aforementioned limitations have been included in each of independent claims 1, 24 and 25 such that these independent claims, as will be discussed below, should now be in condition for allowance. Furthermore, by the present amendment, the feature of "one frame" as recited in dependent claim 9 has been included in the independent claims with claim 9 being canceled, as well as claims 15 - 20 which stand withdrawn from consideration as being directed to a non-elected invention and have been canceled without prejudice to file a divisional application directed thereto. Further, new dependent claims 26 - 31 which depend directly or indirectly from independent claim 1 have been added.

Turning to the amendment of the claims, as noted above, the independent claims have been amended to recite a liquid crystal display device for displaying video data which comprises a detection circuit for detecting a luminance distribution in one frame. As illustrated in Fig. 23 of the drawings of this application, for example, the luminance distribution is indicative of generation frequency of gradations in each of a plurality of divided regions with each divided region including a plurality of degradations based on the video data which is inputted. According to the present invention, a determinatin circuit determines a divided region of higher generation frequency of gradation than that of all other divided regions based on the luminance distribution in one frame. Thus, referring to Fig. 23, the divided region of the frequency H5 is determined to be the divided region of higher generation frequency of gradation than that of all other divided regions represented by H1-H7 in

such figure. Furthermore, by the present amendment, the independent claims have been amended to recite the feature of a memory for delaying the video data which is inputted by one frame. Which memory is represented by the frame memory 150 as shown in Fig. 31, for example. According to the present invention, a correction circuit represented by the correction circuit 76 of Fig. 31 corrects the video data which is delayed by one frame. So as to make a luminance characteristic of the divided region of higher generation frequency of gradation more abrupt than a luminance characteristic of the other divided regions as shown in Fig. 8, for example, with a display panel being provided for displaying the corrected video data. It is noted that independent claims 24 and 25 recite similar features while reciting the operation of the correction circuit in a somewhat different manner with claim 24 reciting the feature of a correction circuit for correcting the video data which is delayed by one frame. By increasing an output gradation number against an input of the divided region of higher generation frequency of gradation more than an output gradation number against an input gradation number of other divided regions and claim 25 reciting a correcting circuit for correcting the video data which is delayed by one frame. So as to emphasize contrast of the divided region of higher generation frequency of gradation more than contrast of the other divided regions as described in connection with Fig. 8, for example. Applicants submit that such features are not disclosed or taught in the cited art.

The rejection of claims 1, 9, 12, 21 - 22 and 25 - 25 under 35 USC 102(e) as being anticipated by Kawabata et al (US Patent No. 6,373,533 B1); the rejection of claim 13 under 35 USC 103(a) as being unpatentable over Kawabata in view of Winkelman (US Patent No. 5,748,802) and the rejection of claim 23 under 35 USC 103(a) as being unpatentable over Kawabata in view of Tsuda (US Patent No. 6,600,470 B1); such rejections are traversed insofar as they are applicable to the present claims and reconsideration and withdrawal of the rejections are respectfully requested.

As to the requirements to support a rejection under 35 USC 102, reference is made to the decision of In re Robertson, 49 USPQ 2d 1949 (Fed. Cir. 1999), wherein the court pointed out that anticipation under 35 U.S.C. §102 requires that each and every element as set forth in the claim is found, either expressly or inherently described in a single prior art reference. As noted by the court, if the prior art reference does not expressly set forth a particular element of the claim, that reference still may anticipate if the element is "inherent" in its disclosure. To establish inherency, the extrinsic evidence "must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill." Moreover, the court pointed out that inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.

With regard to the requirements to support a rejection under 35 USC 103, reference is made to the decision of The Examiner is referred to the decision of In re Fine, 5 USPQ 2d 1596 (Fed. Cir. 1988), wherein the court pointed out that the PTO has the burden under '103 to establish a prima facie case of obviousness and can satisfy this burden only by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references. As noted by the court, whether a particular combination might be "obvious to try" is not a legitimate test of patentability and obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching or suggestion supporting the combination. As further noted by the court, one cannot

use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention.

Furthermore, such requirements have been clarified in the recent decision of In re Lee, 61 USPQ 2d 1430 (Fed. Cir. 2002) wherein the court in reversing an obviousness rejection indicated that deficiencies of the cited references cannot be remedied with conclusions about what is "basic knowledge" or "common knowledge".

The court pointed out:

The Examiner's conclusory statements that "the demonstration mode is just a programmable feature which can be used in many different device[s] for providing automatic introduction by adding the proper programming software" and that "another motivation would be that the automatic demonstration mode is user friendly and it functions as a tutorial" do not adequately address the issue of motivation to combine. This factual question of motivation is immaterial to patentability, and could not be resolved on subjected belief and unknown authority. It is improper, in determining whether a person of ordinary skill would have been led to this combination of references, simply to "[use] that which the inventor taught against its teacher."... Thus, the Board must not only assure that the requisite findings are made, based on evidence of record, but must also explain the reasoning by which the findings are deemed to support the agency's conclusion. (emphasis added)

As pointed out to the Examiner at the interview, while the Examiner contends that Kawabata et al discloses the claimed invention with the Examiner referring to "each of divided regions (S1-S4)" and that Kawabata et al teaches a determination circuit for determining a divided region "(e.g., S3) of higher generation frequency of gradation than that of other divided regions (S1-S2)" and that Kawabata et al teachings a correction circuit so as to make a luminance characteristic of "the divided region of a higher generation frequency (S3) more abrupt than a luminance characteristic of the other divided regions (S1, S2 and S4)" (emphasis added)

applicants submit that the Examiner has mischaracterized the disclosure of Kawabata et al in relation to the claimed invention. That is, in one instance, the Examiner recognizes that the "other divided regions" include the regions S1, S2 and S4 in addition to the divided region S3, but with respect to the determination circuit does not include the region S4. In any event, looking to Figs. 3 - 4 and 7 of Kawabata et al, and the Examiner's statement that "Kawabata et al teaches a determination circuit (2) for determining a divided region (e.g., S3) of higher generation frequency of gradation than that of other divided region (S1-S2)" (emphasis added), it is readily apparent that contrary to the position set forth by the Examiner, while in accordance with the disclosure of Kawabata et al the divided region S3 is determined, even utilizing the Examiner's analysis in Fig. 7 of Kawabata et al, the divided region S3 is of lower generation frequency of gradation than that of other divided regions (S1 and S2) and the same relationship is present in Figs. 3 and 4 of Kawabata et al prior to correction with the dashed line indicating the initial values and the solid line indicating the corrected values. Thus, contrary to the position set forth by the Examiner, Kawabata et al does not teach a determination circuit for determining a divided region of higher generation frequency of gradation than that of other divided regions, which would necessarily be the region S1 in each of Figs. 3, 4 and 7 of Kawabata et al and Kawabata et al fails to disclose a correction circuit which corrects the video data so as to make a luminance characteristic of the divided region of higher generation frequency, i.e., S1 in Figure 3, 4 and 7 of Kawabata et al more abrupt than a luminance characteristic of the other divided regions. Thus, applicants submit that each of the independent claims reciting such features patentably distinguish over Kawabata et al in the sense of 35 USC 102 and also patentably distinguish over Kawabata et al in the sense of 35 USC 103 and all claims should be considered allowable thereover.

At the interview, in light of the Examiner's mischaracterization of Kawabata et al, in failing to consider the all of the divided regions S1-S4, the independent claims

have been amended to refer to "all other divided regions." However, such amendment does not affect the non-applicability of Kawabata et al to the previous claimed invention.

As noted above and discussed at the interview, in order to further patentably distinguish the claimed invention over the cited art, the independent claims have been amended to recite a detection circuit for detecting a luminance distribution in one frame, which is recited in dependent claim 9 which has been canceled. Furthermore, the claims have been amended to recite a memory for delaying the video data which is inputted by one frame, and that the correction circuit corrects the video data which is delayed by one frame, and as recognized by the Examiner at the interview, Kawabata et al provides no disclosure or teaching of delaying the video signals by one frame. With the correction circuit operating on the video data which is delayed by one frame. As such, applicants submit that the independent claims as amended, further patentably distinguish over Kawabata et al in the sense of 35 USC 102 and 35 USC 103 noting that the feature that the display device is a liquid crystal display device, has been reinserted in the claims of this application and as noted by the Examiner in the interview summary, such combination of features would overcome the prior art. Thus, applicants submit that all claims present in this application patentably distinguish over Kawabata et al in the sense of 35 USC 102 and 35 USC 103 and should be considered allowable thereover.

With respect to the combination of Kawabata et al with Winkelman, in relation to claim 13 and with Tsuda in relation to claim 23, applicants submit that neither Winkelman nor Tsuda overcome the deficiencies of Kawabata et al as pointed out above. Irrespective of the Examiner's contention which applicants submit do not relate to the claimed invention, Winkelman and Tsuda do not disclose or teach in the sense of 35 USC 103 for calculating a correction coefficient in each divided region and operating on video data which is delayed by one frame by a memory. Likewise, Tsuda fails to disclose a correction circuit for correcting the video data which is

delayed by one frame, by a memory as recited in independent claim 1 and therefore, the proposed combination of references fails to provide the claimed features as recited in the independent and dependent claims of this application and all claims should be considered allowable thereover.

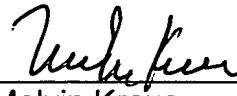
With respect to newly added claims 26 - 31, applicants submit that such claims are in compliance with 35 USC 112, and recite further features of the present invention in relation to Figures 8, 9, 28 and 27, for example. Thus, applicants submit that such claims should also be considered at this time and determined to be allowable in accordance with the Allowability of the parent claims thereof.

In view of the above amendments and remarks and the indication by the Examiner in the interview summary, applicants submit that all claims present in this application should be in condition for allowance and issuance of an action of a favorable nature is courteously solicited.

To the extent necessary, applicants petition for an extension of time under 37 CFR 1.136. Please charge any shortage in the fees due in connection with the filing of this paper, including extension of time fees, to the deposit account of Antonelli, Terry, Stout & Kraus, LLP, Deposit Account No. 01-2135 (Case: 501.39894X00), and please credit any excess fees to such deposit account.

Respectfully submitted,

ANTONELLI, TERRY, STOUT & KRAUS, LLP



Melvin Kraus

Registration No. 22,466

MK/jla
(703) 312-6600